

CLAIMS

What is claimed is:

- 1 1. A method comprising:
 - 2 determining a maximum sustainable power level for an integrated circuit based
 - 3 upon characteristic data;
 - 4 translating the maximum sustainable power level into a maximum performance
 - 5 characteristic; and
 - 6 adjusting operation of the integrated circuit such that the maximum performance
 - 7 characteristic is not exceeded.
- 1 2. The method of claim 1, wherein determining a maximum sustainable power level
 - 2 for the integrated circuit based upon environmental characteristics further comprises
 - 3 determining a maximum sustainable power level for the integrated circuit based upon
 - 4 thermal environment characteristics of a system containing the integrated circuit.
- 1 3. The method of claim 2, wherein the thermal characteristics are stored within a
 - 2 BIOS.
- 1 4. The method of claim 1, wherein determining a maximum sustainable power level
 - 2 for the integrated circuit based upon environmental characteristics further comprises
 - 3 determining a maximum sustainable power level for the integrated circuit based upon
 - 4 design characteristics of the integrated circuit.

1 5. The method of claim 4, wherein the design characteristics are stored within the
2 integrated circuit.

1 6. The method of claim 1, wherein the integrated circuit comprises a memory
2 module.

1 7. The method of claim 6, wherein the memory module comprises a RDRAM
2 memory module.

1 8. The method of claim 1, wherein the maximum performance characteristic
2 comprises a maximum allowable data transfer rate.

1 9. The method of claim 8, wherein adjusting operation of the integrated circuit
2 further comprises:

3 monitoring an amount of data transferred to and/or from the integrated circuit;

4 and

5 reducing the amount of data transferred if the amount of data transferred results
6 in a data transfer rate that exceeds the maximum allowable data transfer rate.

1 10. The method of claim 8, wherein adjusting operation of the integrated circuit
2 further comprises determining an amount of time for which the maximum allowable data
3 transfer rate may be sustained.

1 11. A apparatus comprising:
2 first circuitry to:
3 determine a maximum sustainable power level for an integrated circuit
4 based upon environmental characteristics;
5 translate the maximum sustainable power level into a maximum
6 performance characteristic; and
7 adjust operation of the integrated circuit such that the maximum
8 performance characteristic is not exceeded.

1 12. The apparatus of claim 11, wherein the environmental characteristics include
2 integrated circuit design characteristics stored within the integrated circuit.

1 13. The apparatus of claim 11, wherein the environmental characteristics include
2 thermal characteristics stored within the apparatus.

1 14. The apparatus of claim 11, wherein the integrated circuit comprises a memory
2 module.

1 15. A system comprising:
2 an integrated circuit; and
3 a BIOS coupled to the integrated circuit to:
4 determine a maximum sustainable power level for the integrated circuit
5 based upon environmental characteristics,

6 translate the maximum sustainable power level into a maximum
7 performance characteristic, and
8 adjust operation of the integrated circuit such that the maximum
9 performance characteristic is not exceeded.

1 16. The system of claim 15, wherein the integrated circuit comprises a memory
2 module having at least a portion of the environmental characteristics stored thereon.

1 17. The system of claim 15, wherein the environmental characteristics include
2 thermal characteristics of the system.

1 18. The system of claim 15, wherein the maximum performance characteristic
2 comprises a maximum allowable data transfer rate.

1 19. An article of manufacture comprising a machine readable medium having a
2 plurality of machine readable instructions stored thereon, wherein the instructions, when
3 executed by a processor, cause the processor to:

4 determine a maximum sustainable power level for an integrated circuit based
5 upon environmental characteristics;

6 translate the maximum sustainable power level into a maximum allowable data
7 transfer rate;

8 adjust operation of the integrated circuit such that the maximum allowable data
9 transfer rate is not exceeded.

1 20. The article of manufacture of claim 19, further comprising instructions that, when
2 executed by a processor, cause the processor to adjust operation of the integrated
3 circuit by determining an amount of time for which the maximum allowable data transfer
4 rate may be sustained.